



INDEXA

Helping to Make DX Happen Since 1983

Spring 2015

www.indexa.org

Issue 109

A 501(c)(3) non-profit organization for the enhancement of amateur radio, worldwide peace, and friendship

A Message from President Dixon

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Fellow U.S. Members:

The recent announcement that INDEXA had been granted a 501(c)(3) tax exempt status by the IRS was one of the most exciting announcements that I have ever been privileged to make as President. It had been our goal for years to be in a position to qualify for this valuable tax exempt status. The task of accumulating years of data on our organization and filing new documents and updating ex-

isting ones within our home state of SC took quite a while. It took several years to achieve and was the work of many individuals.

Since INDEXA was organized in late 1983 we have intentionally kept our membership dues low because the members in general were so generous with donations. This has allowed our membership numbers to grow and provided a reasonable budget to assist funding various DXpeditions. For years INDEXA has been considered a major donor to the most wanted DXpeditions, and in many cases INDEXA has been the first to provide grants when "seed money" was needed to get the DXpeditions going.

Each year the DXpeditions to the most wanted entities help keep us DXers happy. Keeping the DXpeditions sailing gets harder and more expensive each year. It looks like there are more DXpeditions going to the Top 10 Most Wanted entities this year and in 2016. Other, yet to be announced DXpeditions, will be needing support over the next few months. Standby for announcements soon.

You now have another option for receiving a tax exemption on your Federal Taxes by donating to INDEXA. Please consider assisting many of the pending rare DXpeditions in advance. Each donation will receive an email confirmation from INDEXA with the IRS Tax Number that you can use when claiming the donation. Donations can be made on the INDEXA web site at www.indexa.org under the *Join, Renew or Donate Tab* or by the US Mail at the following address.

**International DX Association
398 Lakeview Shores Loop
Mooresville, NC 28117**

Thanks for your support through membership and hopefully our efforts will add to your DXing pleasure over the coming months and years.

73, Gary Dixon, K4MQG
INDEXA President

inside... Navassa—2015 on the Second Front Page!



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Second Front Page

K1N—The Navassa Island DXpedition

By Ralph Fedor, K0IR

Five million years ago a paroxysm ripped the floor of the Caribbean Sea, thrusting up a mix of coral and limestone that became Navassa Island. Two million years later, erosion from rains had honeycombed the island with limestone caves that millions of bats began filling with guano. After another three million years, The Guano Act was passed by the American Congress in 1856, enabling guano mining on Navassa. But the invention of dynamite by Alfred Nobel in 1867 and a labor uprising on Navassa in 1898 sealed the fate of guano mining on the island. The U.S. Coast Guard built and manned a lighthouse on the island from 1917 until 1929 when it was replaced with an automated beacon system. The lighthouse ceased operation in 1996 and jurisdiction of Navassa was passed to the U.S. Department of the Interior which named Navassa as a U.S. National Wildlife Refuge. Now, five million years after that Caribbean upheaval, I was in the air bound for Navassa.

The Bell 212 helicopter began its slow descent from 5500 feet over the rough Caribbean Sea below us. My thoughts flashed back, trying to comprehend in a few moments all that had transpired since plans for the Desecheo and Navassa Island DXpeditions had begun 15 years ago. Our KP1-5 project leaders, K4UEE, NA5U, and W0GJ, had invested thousands of man hours, traveled thousands of miles, and drafted reams of documents. They had endured denial after denial of the proposed DXpeditions yet maintained a focused, but respectful, persistence that would not yield. Now, after staging our equipment and assembling most of our team in Jamaica, the reward for all



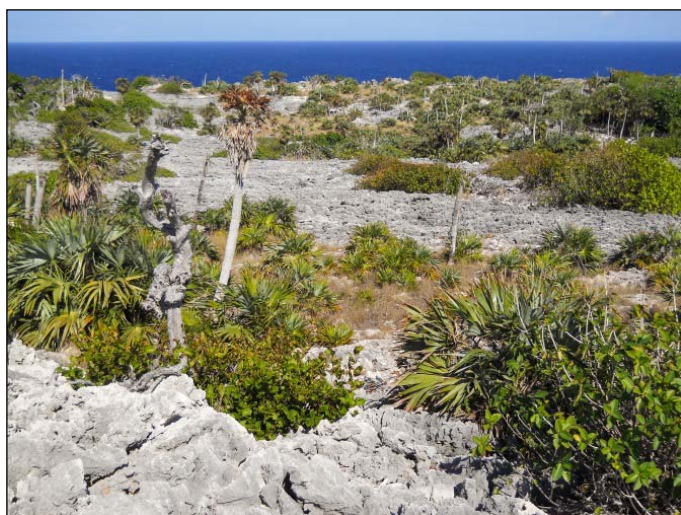
The Navassa Island lighthouse and lighthouse keeper's house.

their labor was at hand.

As we flew toward Navassa, I thought of our off-shore support vessel, the *Electra*. She had sailed from Miami a week earlier and was making her way toward the island, hampered by high winds and

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K1N—The Navassa Island DXpedition (con'd)



The rough, rocky surface of Navassa.

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rough seas. When she had a weather window the Electra would find an anchorage off shore at Lulu Bay, a small cove on the southwest part of the island. Aboard Electra were three team members; AA7JV, HA7RY, N6MZ; and all our cargo that was too heavy or too bulky to come by helicopter.

My thoughts were interrupted when the pilot's voice came over our headsets, above the whine of the engines and dull thumping of the rotor. "There it is. 11 o'clock. That's Navassa," he said. I peered through the windshield and saw the gray cliffs rimming the island with crashing surf producing white flashes at their bases. Scattered patches of gray rock between the green of shrubs, trees, and grasses colored the island's surface. And then,



Navassa Island comes into view.

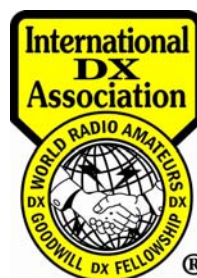
faintly, the legendary lighthouse came into view.

For weeks before this flight, one question had haunted me. Would we be able to use the lighthouse to support high wire antennas? It was a question we were afraid to ask, fearing what the answer might be. Without that resource, I feared we would be severely compromised. We had five SteppIR two element beams and four verticals for the low bands. But the verticals were on the Electra which might not be able to land them in the rough seas that were predicted for the next several days. And we were handicapped by the rocky surface of the island and its poor ground conditions for vertical antennas. Our masts for supporting the Yagi's topped out at 20 feet. They would not be usable for supporting dipoles or slopers. How would we deal with all the propagation available to us with these limited antenna resources? To do our job well, we needed to be on two modes at the same time on at least 10, 15, and 20 meters, be on 17 and 12 with one mode, and cover the low bands. Predictions said we would have excellent propagation. How could we take advantage of this fabulous gift with the antennas we had? We had plenty of spooled up antenna wire and at least 2 pre-cut dipoles with us, but how could we deploy the additional antennas we had or those we would fabricate on site?

The lighthouse grew closer and just before the shudder when the Bell 212 transitioned from normal flight into ground effect, my anxieties were relieved and my questions were answered. That's when I

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K1N—The Navassa Island DXpedition (con'd)



Old Glory flying from the lighthouse.

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saw it. One hundred and sixty feet above ground, the American flag was flying from the lighthouse. I knew in a heartbeat that we were going to be allowed to climb the inner stairs of the lighthouse and from the same level that our flag was flying, attach wire antennas. We had dodged a huge bullet. Visions of 160 foot high sloping dipoles and inverted-vee's begun to swirl in my head.



The Bell 212 landing at Navassa.

In a strong cross wind, our pilot gently set the helicopter down at 1959 UTC on February 2nd and flattened the rotor blades whose spinning tips were about 50 feet from the lighthouse and lighthouse keeper's house. Jerry, Glenn, George and staff from the U.S. Fish and Wildlife waved to us while the 212's twin turbine engines began to spool down. As the pilot worked through his shut down procedure, the helicopter's mechanic opened the doors and motioned to us that it was safe to get out of the helicopter and to begin unloading the cargo that had accompanied us on the flight.



Unloading the helicopter. Mike, NA5U, in the foreground carrying a box of MRE's.

As we carried our food, water, fuel, antennas, shelter components, and personal baggage from the helicopter toward the lighthouse keeper's house, it became apparent that Glenn, George, Jerry, and the U.S. Fish and Wildlife personnel had done an enormous amount of work since they arrived 24 hours earlier. They found the lighthouse floor and spiral staircase covered with rust, rubble, and rat nests. Vegetation, both alive and dead, had taken over the space inside the lighthouse keeper's house whose roof had long since collapsed. A two foot square opening in the center of the keeper's house was wide open to a cistern below and rat droppings and scurrying roaches were everywhere. The small acetylene gas storage house next to the lighthouse was also filled with debris. Using shovels, buckets, and brooms; and with masks covering their noses and mouths; these men removed dirt and debris that had accumulated in these structures over the last 20

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K1N—The Navassa Island DXpedition (con'd)

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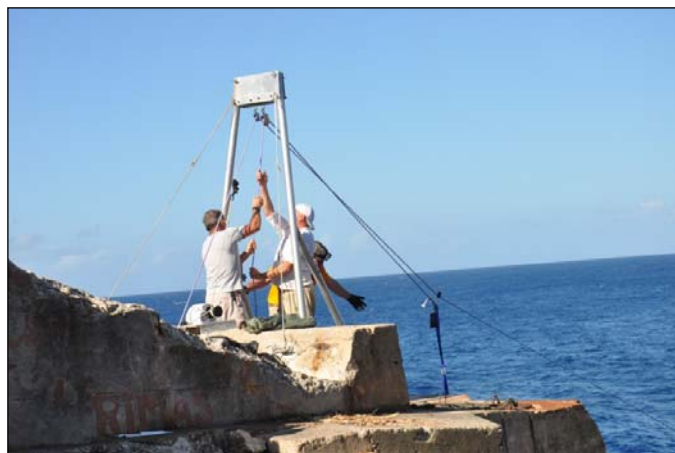
years. Thanks to them we now had relatively clean areas for our stations inside the lighthouse and the adjacent gas house. Our shelters could be set up inside the walls of the old lighthouse keeper's house, affording us protection from the winds. Without a roof rain was a problem, but our base of operations was better than expected.



One of our shelters erected inside the old keeper's house.

More cargo and team members arrived as the helicopter shuttled back and forth over the next two days. The aircraft had to carry extra fuel in auxiliary tanks to have sufficient range for each round trip. This limited our cargo weight on each flight and necessitated more round trips. After an arduous voyage, the Electra arrived. The team was now whole and safe. But the arrival of the Electra brought with it a new challenge, getting cargo ashore in the face of steep, undercut cliffs and high surf.

But where a problem exists; human ingenuity, for the sake of DX; will rise to the occasion. George, AA7JV, dove to the sea bottom and secured an anchor in the sand. We then ran a davit line from this anchor to a metal frame that we secured to a rocky cliff on shore. Add a pulley, a sling, and a pull rope and we had a tram line to bring additional fuel, water, and equipment ashore. It was not easy, and we had bet a lot on being able to offload cargo from the Electra, but the process worked.



Gear from the Electra coming ashore on the davit line.

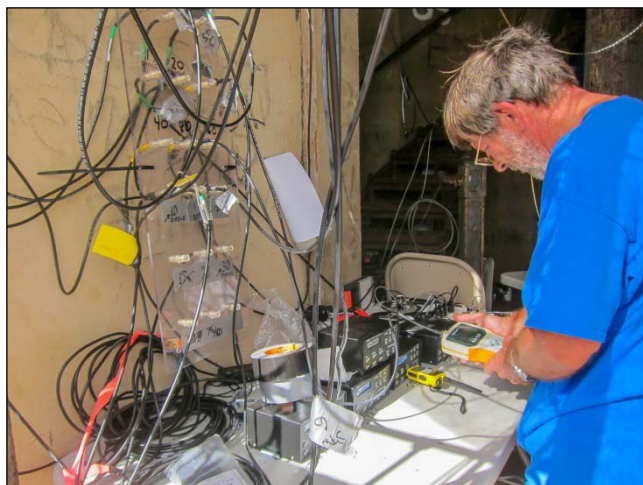


NM1Y, K9CT, N6MZ, and WB9Z hauling supplies from Lulu Bay to the stations at the lighthouse and gas house—no easy task.

W2GD's voice cracked over my 2 meter HT, "It looks good, tie it off!" John was high atop the lighthouse securing one end of the full-sized 160 meter sloper. I was at the other end of the antenna tramping in the bushes 250 feet from the base of the lighthouse trying to avoid falling into holes and coming into contact with poisonwood trees. I pulled the antenna tight and tied it off. Moments later the HT cracked again, "1.2 to 1 at 1825. We'll take it!" We repeated this exercise with the 80 meter inverted-Vee and with dipoles fixed to window openings lower down in the lighthouse. Meanwhile the SteppIRs were going up and stations were be-

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K1N—The Navassa Island DXpedition (con'd)



John, W2GD, attending to the antennas.

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ing set-up. The antenna compliment we needed was materializing.

We came on the air just after 2300 UTC on 1 February. By sunrise we would have stations on 80, 40, 20, and 15 meters with the remaining bands added before day's end. With Navassa being the number one most wanted country and with the bands simultaneously open to North America and Europe, the pile-ups were, in a word, COLOSSAL. Managing the pile-ups was a true challenge to our team, but what a team we had.

K4UEE focused on the low bands with prodigious endurance. NA5U and N2TU were our RTTY rocks. W2GD and HA7RY were indomitable on CW while K9CT, WB9Z, K6MM, and W0GJ were multimode QSO machines. W6IZT managed our computers and logging and booked a lot of QSO's. N6MZ kept our spirits high and was happy working any mode or continent. AA7JV had his hands full with the Electra, but joined in the low band work. NM1Y had planned our power grid and, for this being his first DXpedition, did an amazing job in all respects. And then there was the indefatigable N4GRN who lead us through the quagmire of customs and shipping and managed our internet services. The team brought together a critical blend of operating skills and infrastructure support.

My job on the DXpedition was operator scheduling; trying to equitably assign operating time while considering skill sets, preferences, tasks other than op-

erating, the need for sleep, and always-always-always, propagation. My job was made easier with the help of K6TU's propagation prediction service and the self-help found on DX Summit. However, most helpful of all was having a team whose energy and good nature was inexhaustible.

Propagation was indeed kind to us, but we had to give special attention to areas whose openings were "underneath" stronger signals from other parts of the world. For example, stronger signals from North America would have obscured openings to Japan had we not specifically listened for and called for JA stations. Similarly, the opening to deep Asia, was concurrent with strong signals from Europe. Our prediction programs and the cooperation of North American and European operators who stood by when necessary allowed us to work these difficult areas.

It seems that "factor-x" finds its way into every DXpedition. Something unexpected always happens; it may be a blessing or a bite in the behind. "Factor-x" came calling at Navassa as well, but it brought with it a "win-win" situation. Haitian fishermen regularly visit Navassa to fish off its reefs. We had left over fuel, tables, chairs, shelters, tarps, water containers, and food. The cost of flying these back to Jamaica would exceed their worth. The Haitian fishermen were happy to accept these items. They received something of value, we saved

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Haitian fishermen carrying away our unused fuel.

K1N—The Navassa Island DXpedition (con'd)



All our left over supplies were taken aboard the Haitian fishing boats.

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the cost of flying cargo back to Jamaica, and an act of international goodwill took place through the medium of ham radio.

During the DXpedition, kudos and criticism came our way and both were helpful. However, the final yardstick to apply to this or any other DXpedition is the outcome produced by the DXpedition team. A

DXpedition's outcome, its data, speaks the truth and often nullifies some of the criticism and some of the kudos. Our outcome was just under 140,000 QSO's and an average of 767 QSO's per operator per day. The latter figure was only exceeded by the Ducie Island DXpedition of 2008. But most important of all, and this is something outside the realm of data, the K1N DXpedition began as a group of friends and ended as a group of friends.

Should we be happy with these numbers? Yes, I think so. But we should not be completely satisfied. There is always room for improvement and that is what drives DX.

As the helicopter rose to take me off the island, I looked over my shoulder at the old lighthouse. The light in the old watchtower of the island had long since gone out. But the iconic structure had once more given itself to the service of humankind. It gave its support to the antennas that defined K1N and in so doing thrilled amateur radio operators around the world. "Goodbye my old friend," I said, "and thank you."

—73 *Ralph*, K0IR



The K1N Navassa Island DXpedition Team

Kneeling: N4GRN, NM1Y Standing (L to R): NA5U, W2GD, HA7RY, AA7JV, K0IR, K6MM, WB9Z, W6IZT, N6MZ, K4UEE, W0GJ, N2TU, K9CT